

Title (en)

ELECTRICAL BREAKER DEVICE FOR CURRENT LEAKAGE, CURRENT OVERLOAD AND SHORT-CIRCUIT PROTECTION

Title (de)

ELEKTRISCHE SCHALTEINRICHTUNG FÜR FEHLERSTROM-, ÜBERSTROM- UND KURZSCHLUSSSTROMSCHUTZ

Title (fr)

DISPOSITIF DE COMMUTATION ELECTRIQUE POUR PROTECTION CONTRE LES COURANTS DE FUITE, LES COURANTS DE SURCHARGE ET LES COURANTS DE COURT-CIRCUIT

Publication

EP 1336185 B1 20040901 (DE)

Application

EP 01997825 A 20011108

Priority

- DE 10058075 A 20001123
- EP 0112889 W 20011108

Abstract (en)

[origin: WO0243095A1] An electrical breaker device for current leakage, current overload and short-circuit protection is disclosed, with a contact junction (29) in the current path (28), a breaker lock for permanent opening of the contact junction and means for the determination of the leakage current, current overload and short-circuit current. Said means comprise two permanent magnets (16, 17), arranged with the same sense poles opposite each other, whereby a rigidly fixed core (18) of magnetic material is fixed between the opposing same sense poles of the permanent magnets (10). The permanent magnets (16, 17) are at least partly surrounded by at least one coil (20, 22), through which a leakage current, overload current, or short-circuit current flow(s), such that on a current flow occurring in the coil, the magnetic field is altered such that a relative movement of the displaceable components occurs, transmitted either directly to the contact junction or by means of the breaker lock.

IPC 1-7

H01H 71/28

IPC 8 full level

H01H 71/14 (2006.01); **H01H 71/28** (2006.01); **H01H 71/32** (2006.01); **H01H 71/24** (2006.01); **H01H 83/22** (2006.01)

CPC (source: EP US)

H01H 71/142 (2013.01 - EP US); **H01H 71/28** (2013.01 - EP US); **H01H 71/322** (2013.01 - EP US); **H01H 71/2454** (2013.01 - EP US); **H01H 71/2463** (2013.01 - EP US); **H01H 83/226** (2013.01 - EP US)

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

WO 0243095 A1 20020530; DE 10058075 A1 20020606; DE 50103492 D1 20041007; EP 1336185 A1 20030820; EP 1336185 B1 20040901; US 2003235021 A1 20031225; US 7088207 B2 20060808

DOCDB simple family (application)

EP 0112889 W 20011108; DE 10058075 A 20001123; DE 50103492 T 20011108; EP 01997825 A 20011108; US 44459103 A 20030523